

CLAIMS

1. A non-Cu-based cast Al alloy that contains substantially no Cu, wherein

the tensile strength thereof is 305 MPa or more, the
5 0.2% yield strength thereof is 220 MPa or more, and the elongation thereof is 10% or more.

2. The non-Cu-based cast Al alloy according to claim 1, containing 6.5 to 7.5% Si by mass, and 0.36% or less Mg by mass.

10 3. The non-Cu-based cast Al alloy according to claim 2, wherein said non-Cu-based cast Al alloy contains 20 to 70 ppm of Sr.

15 4. The non-Cu-based cast Al alloy according to any of claims 1 to 3, wherein said non-Cu-based cast Al alloy is a precipitation hardened alloy.

5. The non-Cu-based cast Al alloy according to any of claims 1 to 4, wherein said non-Cu-based cast Al alloy is used for vehicle wheels.

20 6. A method for heat treatment of a cast Al alloy comprising;

subjecting a work piece of the cast Al alloy to solution treatment, and then

subjecting the work piece to aging treatment, to improve mechanical properties of the work piece,

5 wherein at least said solution treatment is performed by rapidly raising the temperature to the solution treatment temperature within 30 minutes, and maintaining said solution treatment temperature within 3 hours to form the non-Cu-based cast Al alloy that has a tensile strength of 305 MPa or more, a 0.2% yield strength of 220 MPa or more, and an
10 elongation of 10% or more.

7. A method for heat treatment of a cast Al alloy comprising;

subjecting a work piece of the cast Al alloy to solution treatment, and then
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subjecting the work piece to aging treatment, to improve mechanical properties of the work piece,
wherein at least said solution treatment is performed by allowing said work piece to be present in a fluidized bed
20 to form the non-Cu-based cast Al alloy that has a tensile strength of 305 MPa or more, a 0.2% yield strength of 220 MPa or more, and an elongation of 10% or more.

8. The method of heat treatment according to claim 7,
wherein said aging treatment is performed by allowing said
25 work piece to be present in a fluidized bed.

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9. The method of heat treatment according to claim 7 or
8, wherein said fluidized bed is formed by the direct blowing
of hot air.

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